

35MHz Standard Oscilloscope HM303-6

Specifications

Vertical Deflection

Operating modes:	Channel I or II separate both Channels (alternated or chopped)
Chopper frequency:	approx. 0.5MHz
Sum or Difference:	from CH I and CH II
Invertable:	CH II
XY-Mode:	via CH I(X) and CH II(Y)
Frequency range:	2 x DC - 35MHz (-3dB)
Risetime:	< 10ns
Overshoot:	≤1%
Deflection coefficients:	12 calibrated steps from 5mV/div. to 20V/div. (1 - 2 - 5 sequence) with variable 2.5:1 up to 50V/div.
Accuracy in calibrated position:	±3%
Y-expansion x5:	(calibrated) to 1mV/div. (±5%) in the frequency range from DC - 10MHz (-3dB)
Input impedance:	1MΩ 20pF
Input coupling:	DC-AC-GD (ground)
Input voltage:	max. 400V (DC + peak AC)

Triggering

Automatic, (peak to peak):	20Hz - 50MHz (≥0.5div.) - 100MHz (≥0.8div.)
Normal with level control:	DC - 50MHz (≥0.5div.) - 100MHz (≥0.8div.)
Indicator for trigger action:	LED
Slope:	positive or negative
Sources:	Channel I or II, line, external
ALT. triggering:	CHI / CHII (≥ 0.8div.)
Coupling:	AC (10Hz - 100MHz) DC (0 - 100MHz) LF (0 - 1.5kHz)
External:	≥0.3 _{pp} , (30Hz - 50MHz)
Active TV Sync. Separator:	field and line, +/-

Horizontal Deflection

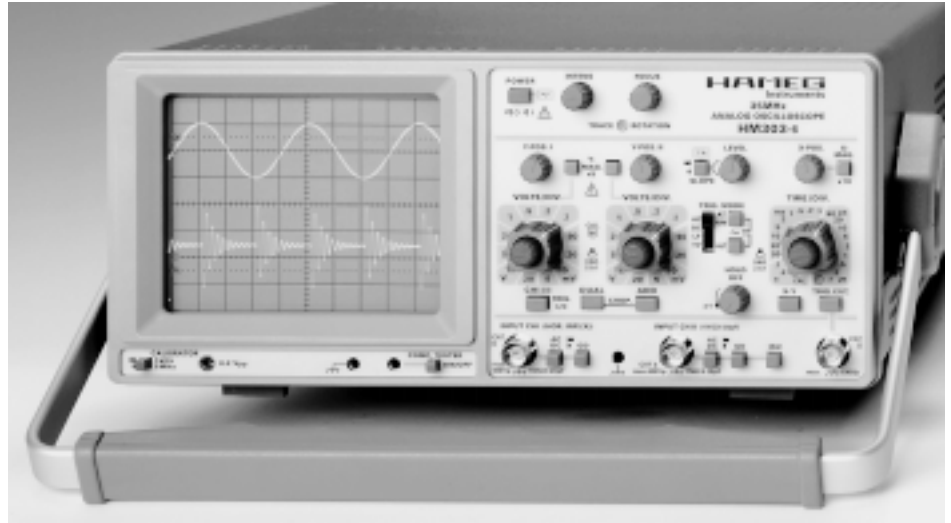
Time coefficients:	20 calibrated steps 0.2s/div. - 0.1μs/div. in 1-2-5 sequence
Accuracy in calibrated position:	±3%
Min. speed incl. variable:	2.5:1 up to 0.5s/div.
X-Mag. x10:	up to 10ns (±5%)
Holdoff time:	variable to approx. 10:1
Bandwidth X-amplifier:	0-2.5MHz (-3dB)
Input X-Amplifier:	via Channel I (sensitivity see Channel I specification)
X Y phase shift:	<3° below 100kHz

Component Tester

Test voltage:	approx. 7V _{rms} (open circuit)
Test current:	approx. 7mA _{rms} (shorted)
Test frequency:	approx. 50Hz
Test connection:	2 banana jacks 4mm Ø One test lead is grounded (Safety Earth)

General Information

CRT:	D14-363GY or ER151-11GY
Rectangular screen:	(8x10cm) internal graticule
Acceleration voltage:	approx 2000V
Trace rotation:	adjustable on front panel
Calibrator:	square-wave generator (t _r < 4ns) ≈1kHz / 1MHz; Output: 0.2V ±1%
Line voltage:	100-240V AC ±10%, 50/60Hz
Power consumption:	approx. 36 Watt at 50Hz.
Min./Max. ambient temperature:	0°C...+40°C
Protective system:	Safety class I (IEC 1010-1)
Weight:	approx. 5.4kg. Color: techno-brown
Cabinet:	W 285, H 125, D 380 mm
Lockable tilt handle	
Subject to change without notice. 04/99	



Vertical: 2 Channels, DC - 35MHz, 1mV/div. - 20V/div.,
Time Base: 0.2s to 10ns/div.; Variable Hold Off; Alternate Triggering
Triggering: DC-100MHz; Auto Peak to Peak; Active TV Sync. Separator
Additional Features: Component Tester, 1kHz/1MHz Calibrator

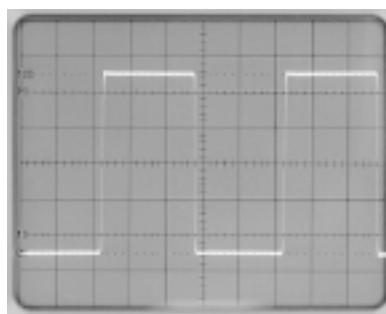
The **HAMEG HM303** oscilloscope succeeds the HM203 (over 180,000 sold worldwide). The bandwidth has been extended from 20 to **35MHz**, the sweep speed increased to **10ns/div.** and improvements added to the already legendary **HAMEG** auto triggering system. The **HM303** is the ideal instrument for waveform display in the **DC to 100MHz** frequency range.

A key feature of this oscilloscope is the vertical amplifier's pulse fidelity, with overshoot less than 1%. The **HM303** offers a special fast rise time **1kHz/1MHz Calibrator**, permitting high quality probe compensation across the entire frequency range to ensure probe tip thru to display integrity.

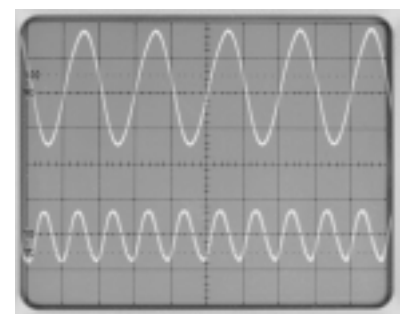
The **HM303** is capable of triggering on input waveforms over **100MHz** at very low signal amplitudes. **Alternate triggering** mode enables the display of two asynchronous signals simultaneously. An active **Video Sync. Separator** permits detailed examination of complex TV signal inputs. A well proven, built-in **component tester** is now equipped with a stabilized measuring voltage. The use of a switching type of power supply minimizes both weight and power consumption and universally accepts a wide range of input power line voltages, without the requirement to change jumpers or switch positions. The **HM303's** CRT is fully **mu-metal shielded** against outside magnetic fields.

HAMEG is setting new **price/performance** breakthroughs with the introduction of this fine oscilloscope. This performance packed scope will tempt all users to run it through its paces.

Screen photo of 1 MHz square wave signal



Screen photo of 50 and 100MHz sine wave with alternate triggering



Accessories supplied: Line cord, Operators Manual, 2 Probes 1:1/10:1